

## Replacement Instructions

# hp StorageWorks Disk Drive

## Modular Smart Array

*These instructions specifically pertain to the MSA1000 product family. The part may also be used in other HP products. Please refer to documentation for your specific product for detailed replacement instructions.*



If the product in which this part is being replaced is still under HP warranty, then the replacement part(s) referred to in these Replacement Instructions is provided under the terms and conditions of the Hewlett-Packard Company Limited Warranty for that product. A copy of this Limited Warranty may be viewed at:  
<http://h18006.www1.hp.com/products/storageworks/warranty.html>

If this is a trade sale part (product out of warranty), then the replacement part(s) referred to in these Replacement Instructions is provided under HP's express limited warranty statement, which may be viewed at:  
[http://customerops.corp.hp.com/1sw/pdm\\_om/warranty\\_support/policies/2330100.doc](http://customerops.corp.hp.com/1sw/pdm_om/warranty_support/policies/2330100.doc)

The replacement part takes on either the Limited Warranty Period of the part being replaced or a ninety-day period that begins upon installation of the replacement part, whichever is greater.

The information contained on these replacement instructions is subject to change without notice. The only warranty for this replacement product is as noted above. Nothing in these replacement instructions should be construed as constituting an additional warranty. The information provided in these replacement instructions is provided "AS IS" and HP is not liable for technical or editorial errors or omissions contained herein.

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## About this document

This document describes the procedure for replacing the SCSI disk drive used in the Modular Smart Array (MSA) products.

## Getting help

If you need assistance replacing the disk drive, go to the HP support web site:

<http://www.hp.com/cgi-bin/hpsupport/index.pl>

## Before you begin

- Make sure you have a replacement part available before removing the failed component. Removing a component impacts cooling within the enclosure.
- If you would like to have a copy of the MSA User Guide available for reference, you can download it from the following web page:

<http://h18006.www1.hp.com/storage/arraysystems.html>



**Caution:** Parts can be damaged by electrostatic discharge. Use proper anti-static protection. Refer to the documentation that shipped with your system for additional information.

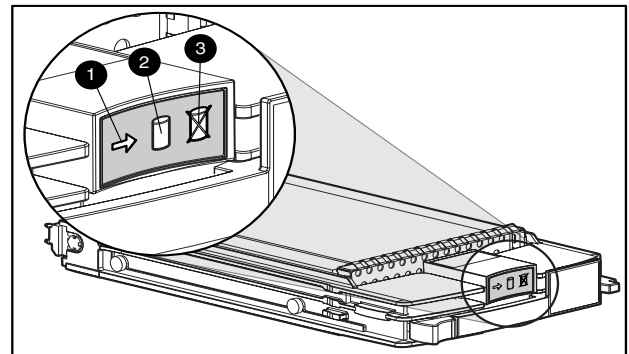
## Verifying disk drive failure

Before replacing a disk drive, use the following methods to verify the component failure:

- Check any enclosure status displays for an indication of disk failure.
- Check the disk drive status indicators for the following:
  - Activity - Off
  - Online - Off
  - Fault - Off, On, or flashing

**Note:** If the status indicators are in a state other than those listed, refer to the product User Guide for more details on interpreting the disk drive status, or contact HP for assistance.

Figure 1: Disk drive status indicators



① Activity    ② Online    ③ Fault

## Removing a disk drive



**Caution:** Do not remove more than one disk drive at a time from the enclosure. Doing so will impact cooling of the enclosure and may cause data loss.

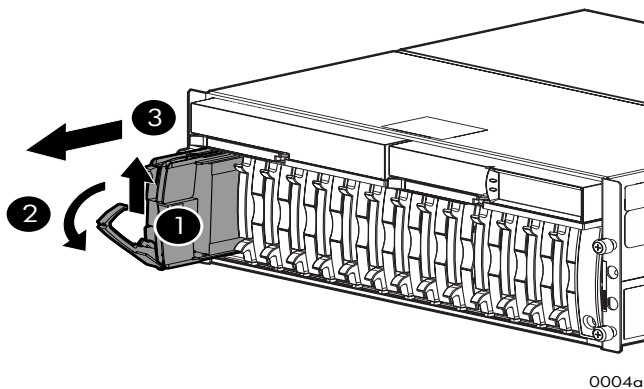
1. Push in the port-colored ejector button (❶, Figure 2) and pull the release lever (❷) down to the full open position.



**Caution:** Rotating media can make the disk drive difficult to handle. To avoid dropping and damaging the disk drive, wait approximately 30 seconds for the media to stop rotating before removing the drive from the enclosure.

2. Pull the disk drive part way out of the enclosure (❸) and wait for the media to stop spinning.
3. When the media has stopped spinning, remove the disk drive from the enclosure.

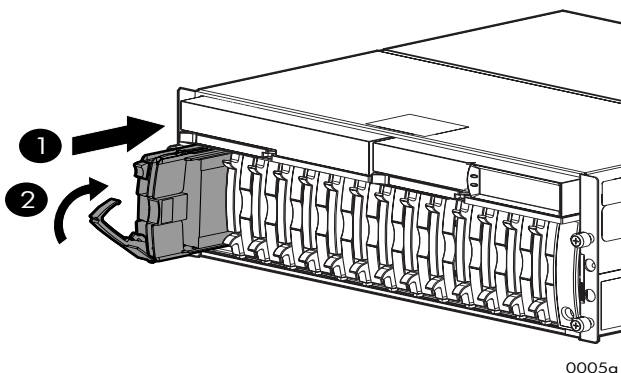
Figure 2: Removing a disk drive



## Installing a disk drive

1. On the replacement disk drive, push in the ejector button and pull the release lever down to the full open position.
2. Insert the drive into the enclosure (❶, Figure 3) as far as it will go.
3. Close the release lever (❷) until it engages the ejector button, and the disk drive seats in the backplane.
4. Press in firmly on the disk drive to ensure it is seated properly.

Figure 3: Installing a disk drive



## Verifying proper operation

After replacing the disk drive, check the following to verify that the disk drive is operating normally:

- Disk drive status indicators (Figure 1) should indicate the following:
  - Activity - On or flashing
  - Online - On or flashing
  - Fault - Off

## Returning the failed component

Please follow the return instructions provided with the new component.